

## Contents of Volume 19

(Abstracted/indexed in: Chemical Abstracts; Current Contents; Physical, Chemical & Earth Sciences; INSPEC; PASCAL/CNRS; MEDLINE)

### Vol. 19 No. 1

Measurement of the friction coefficient of the human skin in vivo: Quantification of the cutaneous smoothness J. Asserin (Besançon, France), H. Zahouani (Ecully, France), P. Humbert (Besançon, France), V. Couturaud and D. Mougin (Paris, France) . . . . .	1
Adsorption of urinary components influences the zeta potential of uropathogen surfaces M.B. Habash (London, Canada), H.C. van der Mei (Groningen, The Netherlands), H.J. Busscher and G. Reid (London, Canada) . . . . .	13
Microstructural evaluation of an elastomeric composite membrane from two immiscible polymers (UHMWPE and polyurethane) for soft tissue replacement Z.G. Tang and S.H. Teoh (Singapore, Singapore) . . . . .	19
Structural analysis of spores of <i>Bacillus subtilis</i> during germination and outgrowth R.G.K. Leuschner, D.P. Ferdinando and P.J. Lillford (Bedford, UK) . . . . .	31
NMR study of bile salts' molecules in binary mixed micelles of bile salt and a non-ionic surfactant M. Ueno, Y. Takamura (Tokyo, Japan), S. Nagadome, G. Sugihara (Fukuoka, Japan) and K. Takahashi (Tokyo, Japan) . . . . .	43
Effects of colchicine and cytochalasin D on the adhesion properties of the HCC onto the collagen IV/laminin coated surface K.-F. Shao, Z.-Z. Wu, B.-C. Wang, M. Long and S.-X. Cai (Chongqing, PR China) . . . . .	55
Erythrocyte attachment to substrates: determination of membrane tension and adhesion energy K.D. Tachev, J.K. Angarska (Shoumen, Bulgaria), K.D. Danov and P.A. Kralchevsky (Sofia, Bulgaria) . . . . .	61
Atomic force microscopic study on the surface properties of phospholipid monolayers containing Ceramide 3 T. Imura, H. Sakai, H. Yamauchi (Chiba, Japan), K. Kozawa (Tsukuba, Japan), S. Yokoyama (Tokyo, Japan), M. Matsumoto (Tsukuba, Japan) and M. Abe (Chiba, Japan) . . . . .	81
$\beta$ -Casein adsorption kinetics on air–water and oil–water interfaces studied by ellipsometry S.C. Russev, T.Vl. Arguirov and T.D. Gurkov (Sofia, Bulgaria) . . . . .	89
Calendar . . . . .	101

### Vol. 19 No. 2

Diffusion through a responding lamellar liquid crystal: a model of molecular transport across stratum corneum E. Sparr and H. Wennerström (Lund, Sweden) . . . . .	103
Chlorophyll <i>a</i> –violaxanthin interactions in monolayers at air–water interface and in Langmuir–Blodgett films W.I. Gruszecki (Lublin, Poland), B. Zelent (Philadelphia, PA, USA), H.-A. Tajmir-Riahi (Trois-Rivières, Canada), G. Wang (Shanghai, PR China), T. Taleb (Trois-Rivières, Canada), K. Veeranjanyulu and R.M. Leblanc (Coral Gables, FL, USA) . . . . .	117
Influence of cationic polysaccharides on polydimethylsiloxane (PDMS) deposition onto keratin surfaces from a surfactant emulsified system J.V. Gruber, B.R. Lamoureux, N. Joshi (Bound Brook, NJ, USA) and L. Moral (Edison, NJ, USA) . . . . .	127
Hydrolysis of 1, 2-rac-dicaprin monomolecular films by <i>Humicola lanuginosa</i> , as reflected in the surface potential M. Ivanova (Sofia, Bulgaria), A. Svendsen (Bagsvaerd, Denmark), R. Verger (Marseille, France) and I. Panaiotov (Sofia, Bulgaria) . . . . .	137
Influence of the water–air interface on the apparent surface tension of aqueous solutions of hydrophilic solutes A. Docoslis, R.F. Giese and C.J. van Oss (Buffalo, NY, USA) . . . . .	147
Surface properties of hydrophobically modified carboxymethylcellulose derivatives. Effect of salt and proteins V. Rosilio, G. Albrecht, A. Baszkin (Châtenay-Malabry, France) and L. Merle (Mont-Saint-Aignan, France) . . . . .	163
Pulsate drug release from poly (lactide-co-glycolide) microspheres: how does the composition of the polymer matrices affect the time interval between the initial burst and the pulsatile release of drugs? K. Makino, T. Mogi, N. Ohtake, M. Yoshida, S. Ando, T. Nakajima, H. Ohshima (Tokyo, Japan) . . . . .	173

Influence of water stress on the lipid physical state of plasma membranes from <i>P. betuloefolia</i> . <i>Bqe</i> leaves H.C. Zhao, B.C. Wang, Y.Y. Liu, C.R. Duan, S.X. Cai (Chongqing, People's Republic of China) and A. Sakanishi (Gunma, Japan) . . . . .	181
Reaction of soybean lipoxygenase-3 in emulsions as affected by emulsifiers, salts and phospholipids Y. Saka, T. Mori and Y. Matsumura (Kyoto, Japan) . . . . .	187
Kinetics of swelling and shrinking of poly ( <i>N</i> -isopropylacrylamide) hydrogels at different temperatures K. Makino, J. Hiyoshi and H. Ohshima (Tokyo, Japan) . . . . .	197
Calendar . . . . .	205

*Vol. 19 No. 3**Special Issue: The Ninth RIKEN Symposium and the Fifth RIKEN-OKAYAMA Joint Forum*

Preface . . . . .	207
Proliferation of endothelial cells on the plasma-treated segmented-polyurethane surface: attempt of construction of a small caliber hybrid vascular graft and antithrombogenicity M. Kaibara, A. Takahashi, K. Kurotobi and Y. Suzuki (Saitama, Japan) . . . . .	209
Antithrombogenicity of cultured endothelial cell-detached surface H. Iwata, M. Kaibara, Y. Suzuki (Saitama, Japan) and H. Nakajima (Tokyo, Japan) . . . . .	219
Ion implantation into collagen-coated surfaces for the development of small diameter artificial grafts K. Kurotobi (Tokyo, Japan), M. Kaibara, Y. Suzuki, M. Iwaki (Saitama, Japan), H. Nakajima and S. Kaneko (Tokyo, Japan). . . . .	227
Oxygen ion implantation at 20 to 2000 keV into polysulfone for improvement of endothelial cell adhesion G. Xu, Y. Hibino, Y. Suzuki (Osaka, Japan), Y. Suzuki (Saitama, Japan), K. Kurotobi (Tokyo, Japan), M. Osada, M. Iwaki, M. Kaibara (Saitama, Japan), M. Tanihara and Y. Imanishi (Nara, Japan) . . . . .	237
Chemical changes of polymeric surfaces after modification with multi-source cluster deposition G. Xu, Y. Hibino, M. Aoki, K. Awazu (Osaka, Japan), M. Tanihara and Y. Imanishi (Nara, Japan) . . . . .	249
Ultra-hydrophobic fluorine polymer by Ar-ion bombardment Y. Inoue, Y. Yoshimura, Y. Ikeda and A. Kohno (Ibaraki, Japan) . . . . .	257
Surface hardness changes induced by O-, Ca- or P-ion implantation into titanium M. Ikeyama, S. Nakao, H. Morikawa, Y. Yokogawa (Nagoya, Japan), L.S. Wielunski, R.A. Clissold and T. Bell (Lindfield, Australia) . . . . .	263
Crystallization in low-energy deposition of titanium ions M. Kiuchi, T. Matsumoto, T. Yoshikawa, S. Goto (Osaka, Japan) and W. Ensinger (Marburg, Germany) . . . . .	269
Absorption in the visible region of YSZ implanted with Ag ions Y. Saito, Y. Imamura (Kofu, Japan) and A. Kitahara (Tokyo, Japan) . . . . .	275
Electrochemical characterization for ion-implanted materials surfaces K. Takahashi and M. Iwaki (Saitama, Japan). . . . .	291
Calendar . . . . .	297

*Vol. 19 No. 4**Special Issue: The Atomic Force Microscope (AFM)*

Preface . . . . .	299
Aspects of the physical chemistry of polymers, biomaterials and mineralised tissues investigated with atomic force microscopy (AFM) K.D. Jandt, M. Finke and P. Cacciafesta (Bristol, UK) . . . . .	301
Surface dependent structures of von Willebrand factor observed by AFM under aqueous conditions M. Raghavachari (Cleveland, OH, USA), H.-M. Tsai (Bronx, NY, USA), K. Kottke-Marchant and R.E. Marchant (Cleveland, OH, USA) . . . . .	315
Changes in the surface structure of purple membrane upon illumination measured by atomic force microscopy N. Persike (Garching, Germany), M. Pfeiffer, R. Guckenberger (Martinsried, Germany) and M. Fritz (Garching, Germany). . . . .	325
Atomic force microscopy studies of icosahedral virus crystal growth Y.G. Kuznetsov, A.J. Malkin, R.W. Lucas and A. McPherson (Irvine, CA, USA) . . . . .	333
Atomic force microscopy of the three-dimensional crystal of membrane protein, OmpC porin H. Kim (Dallas, TX, USA), R.M. Garavito (East Lansing, MI, USA) and R. Lal (Santa Barbara, CA, USA). . . . .	347
Force measurements on platelet surfaces with high spatial resolution under physiological conditions I.S. Lee and R.E. Marchant (Cleveland, OH, USA) . . . . .	357
Substrate dependent differences in morphology and elasticity of living osteoblasts investigated by atomic force microscopy J. Domke, S. Dannöhl, W.J. Parak (München, Germany), O. Müller, W.K. Aicher (Tübingen, Germany) and M. Radmacher (Göttingen, Germany) . . . . .	367

Microphase separation at the surface of block copolymers, as studied with atomic force microscopy A. Rasmont, P. Leclère, C. Doneux, G. Lambin (Mons, Belgium), J.D. Tong, R. Jérôme (Liège, Belgium), J.L. Brédas and R. Lazzaroni (Mons, Belgium) . . . . .	381
Tip friction — torsional spring constant determination G. Bogdanovic, A. Meurk and M.W. Rutland (Stockholm, Sweden) . . . . .	397
Calender . . . . .	407
Author index . . . . .	409
Subject index . . . . .	411
Volume contents . . . . .	413

